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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,389	10/10/2000	Jin Pil Kim	8736.044.00	2251

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EXAMINER

BUI, KIEU OANH T

ART UNIT PAPER NUMBER

2611

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/684,389

Applicant(s)

KIM ET AL.

Examiner

KIEU-OANH T. BUI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 19-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Remark*

1. Claims 15-18, and claims 23-34 were canceled. Pending claims are 1-14, and 19-22.

### *Response to Arguments*

2. Applicant's arguments in the remark of the amendment with respect to claims 1-14 and 19-22 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.*

4. Claims 1-6, 9-12, 14, 19-20, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Stinebruner (U.S. Patent 6,133,910).

Regarding claim 1, Stinebruner discloses "a system includes a virtual channel table for a broadcast protocol, comprising identification information in a bit stream syntax thereof, said identification information identifying each channel as one of an active and an inactive channel", i.e., Table 16 of Fig. 2 shows a virtual channel table (VCT) for a broadcast protocol including a plurality of channels from a variety of sources including active and inactive/or unused channels (denoted as "0") with identifiers for identifying each channel, and as shown in Fig. 3, a computer

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routine for disclosing identification information in a bit stream syntax for identifying which channel is active or inactive/blank/unused (refer to col. 5/lines 45-55 for channel identifiers; col. 7/lines 25-38 for blank channels identifying and allocation; col. 8/lines 12-44 for the bit stream syntax for identifying channels in a virtual channel table as shown in Fig. 2).

As for claim 2, Stinebruner discloses “wherein said virtual channel table is included in a program and system information protocol for a digital broadcast” (Fig. 2 and col. 5/lines 5-55 for digital broadcasting from DBS and other broadcasting protocols using either HDTV format or non-HDTV format is addressed).

As for claim 3, Stinebruner discloses “wherein said digital broadcast is any one of a digital terrestrial broadcast and a digital cable broadcast” (col. 5/lines 5-44 for either a digital broadcast, digital terrestrial broadcast or digital cable broadcast is suggested using HDTV format for digital broadcasting).

Regarding claims 4-6, Stinebruner discloses “wherein said identification information sets a value of a program number field in the virtual channel table to “0” to indicate that a corresponding channel is an inactive channel”; “wherein said identification information sets a value of a number of elements field of a service location descriptor in the virtual channel table to “0” to indicate that a corresponding channel is an inactive channel”; and “wherein said identification information indicates that a corresponding channel is an inactive channel whenever a service location descriptor is not included in the virtual channel table” (Table as shown in Fig. 2 shows either a service location field with a “0” and/or the source channel is “0” indicates inactive channels, and as shown on line 1, if a source location descriptor “Camcorder” is not included in the VCT, it shows a source channel is “0”).

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Regarding claims 9-12 and 14, these claims for “a method of broadcasting using a virtual channel table in a broadcasting protocol, said method comprising: including identification information in the virtual channel table, said identification information identifying a channel as being one of an active and an inactive channel, and transmitting the virtual channel table; and determining at a receiver whether the channel is inactive based upon the identification information defined in the virtual channel table, by parsing the virtual channel table” with limitations as disclosed earlier are rejected for the same reasons in the scope of claims 1-6 above.

Regarding claim 19-22, these claims for “a digital broadcast transmitter, a method of indicating an inactive channel, comprising: generating a virtual channel table, including within the virtual channel table information indicating the inactive channel; and transmitting the virtual channel table as part of a digital broadcast signal” are rejected for the reasons given in the scope of claims 1-6 as disclosed above.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

6. Claims 7-8, 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stinebruner (US Patent 6,133,910) in view of Eyer et al. (US Patent 5,982,411).

As for claims 7-8, 13, and 21, Stinebruner does not further disclose the steps of “wherein said identification information assigns at least one bit of a reserved field to indicate that a corresponding channel is an inactive channel” and “wherein said reserved field is positioned in a statement of a for loop in a bit stream syntax of the virtual channel table”; however, Eyer, in a similar digital broadcasting service system, discloses in a close up view on the protocol of data message with identifier fields, reserved fields, and the reserved field is positioned in a statement of a for loop in a bit stream syntax of the virtual channel table (Eyer, col. 11/lines 1-44 and with in Table 3, reserved fields are 3 bits within the loop of a bit stream syntax for identifying virtual channel table). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stinebruner’s system with Eyer’s detailed technique in using a loop of routine for bit stream syntax including reserved fields for inactive/unused channels in order to identify information for each individual channel whether one is an active or inactive channel within a virtual channel table.

***Conclusion***

**7. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:** (703) 872-9306, (for Technology Center 2600 only)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (571) 272-7291. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:30 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant, can be reached on (571) 272-7294.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kieu-Oanh Bui  
Primary Examiner  
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